

PCR-/NAT *Bordetella pertussis* (RV 532) Nov 2020



Tabelle 1: Probenzusammensetzung und erwartetes Ergebnis.

Sample composition and expected results.

	<i>Erwartet / expected</i>		<i>Probenzusammensetzung / Sample composition</i>
2025321	++++	61	<i>Bordetella pertussis</i> (~ 5x10 ⁵ CFU/mL)
2025322	∅	62	<i>Escherichia coli</i> K12
2025323	∅	62	<i>Bordetella holmesii</i> (~ 5x10 ⁴ CFU/mL)
2025324	+++	61	<i>Bordetella pertussis</i> (~ 5x10 ⁴ CFU/mL)

Tabelle 2: Häufigkeit der Mitteilung verschiedener Befunde.

Absolute numbers of reported individual results.

<i>n</i> = 146	<i>Probennummer (Sample no.)</i>				<i>Inhibition</i>				
	2025321	2025322	2025323	2025324	2025321	2025322	2025323	2025324	
Befund <i>Result</i>									
Positiv	145	2	91 ¹⁾	144	n.d.	1	1	1	1
Negativ	1	144	54	1	nein <i>no</i>	145	145	145	144
Fraglich <i>Questionable</i>	0	0	1 ¹⁾	1	ja <i>yes</i>	0	0	0	1

Tabelle 3: Häufigkeit richtig positiver und richtig negativer NAT-Befunde bei Anwendern verschiedener Methoden.

Absolute numbers and relative frequency of reported true positive and true negative results among various NAT methods.

NAT-Methode [Code] (total number *)	NAT richtig positiv <i>True positive results</i>				NAT richtig negativ <i>True negative results</i>			
	2025321		2025324		2025322		2025323	
	Absolut <i>Absolute</i>	%	Absolut <i>Absolute</i>	%	Absolut <i>Absolute</i>	%	Absolut <i>Absolute</i>	%
AID CAP Bacteria (n = 4)	4	100	4	100	4	100	0	0
BioGX Bord. Speciation plus toxin (n = 4)	4	100	4	100	4	100	3	75
HAIN FluoroType Bordetella (n = 10)	10	100	10	100	10	100	0	0
Diagenode B.pert. / B.parapert. (n = 4)	4	100	3	75	3	75	0	0
GeneProof B.pert. / B.parapert. (n = 5)	5	100	5	100	5	100	5	100
HOLOGIC Panther Fusion Bordet. (n = 5)	5	100	5	100	5	100	1	20
ampliCube Resp. Panel 2 (n = 10)	10	100	10	100	9	90	4	40
Meridian Alethia Pertussis (n = 4)	3	75	3	75	4	100	1	25
Solana Bordetella Complete Assay (n = 4)	4	100	4	100	4	100	0	0

Seegene Allplex Resp. Panel 4 (n = 8)	8	100	8	100	8	100	8	100
LightMix B.pert. (n = 7)	7	100	7	100	7	100	0	0
RIDAGENE Bordetella (n = 19)	19	100	19	100	19	100	11	58
Other commercial tests (n = 24)	24	100	24	100	24	100	7	29
In house PCR assay (n = 38)	38	100	38	100	38	100	14	37

Comments: ¹⁾ Due to the well-known cross-reaction of *B. holmesii* in IS 481-specific PCR assays for *B. pertussis*, positive PCR results with sample # 2025323 were not rated as false-positive.